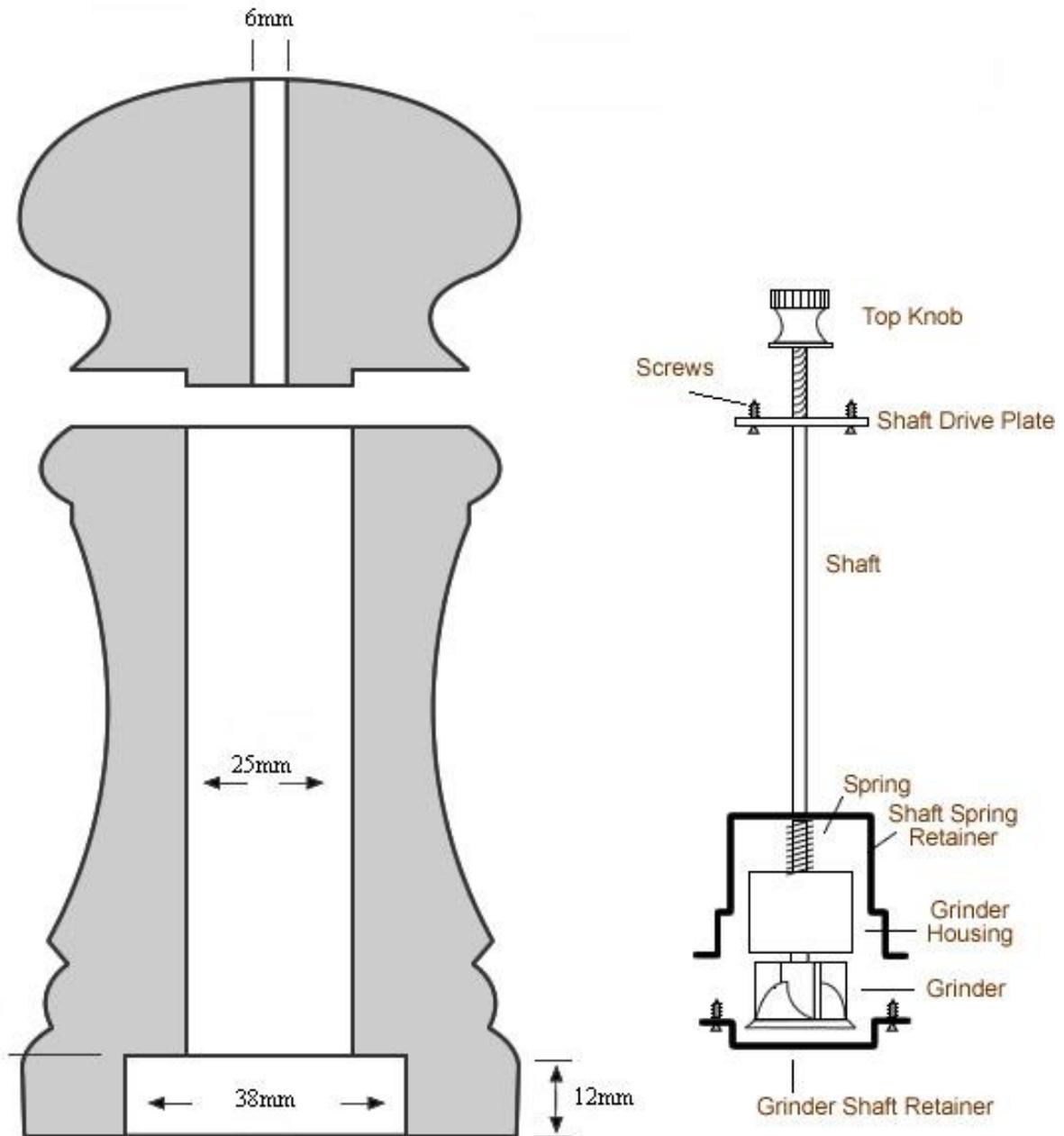




## Turning a Salt Mill



### Plan your Turning

Draw out the design of your salt mill. Determine how tall the Salt mill Body will be, and how tall the Salt mill Top will be.

### Turn the Body



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Select a square blank that is 20mm longer than the Salt mill Body and 10mm wider than the diameter of your Salt mill Body. Mount the blank on your lathe and rough turn to a cylinder. Remove the blank from the lathe and drill the 38mm diameter hole 12mm deep in the bottom of the salt mill. Without moving the salt mill from your drill press drill the 25mm hole halfway through the body. Flip the salt mill over and continue drilling the 25mm hole from the other side until both holes meet.

## Turn the Top

Select a square blank that is 20mm longer than the salt mill Top and 10mm wider than the diameter of your salt mill Top. Mount your blank on the lathe and rough turn to cylinder. Turn a tenon on the bottom that is 6 long and just shy of 25mm in diameter. To size it properly, it should fit snugly in the 25mm hole in the salt mill Body. Also turn a tenon on the top of the salt mill Top that is 25mm in diameter. Remove the Salt mill Top from the lathe and drill the 6mm hole through the center.

## Finish the Salt mill

Press fit the Salt mill Top into the Salt mill Body and remount the whole salt mill on the lathe using jam chucks or a 3 or 4 jaw chuck. Turn the salt mill to final shape and sand. The 25mm tenon should still be on the top of the Salt mill Top. Remove the Salt mill Body from the Top. Turn the 25mm tenon down slightly so that it still fits snugly into the 25mm hole in the Salt mill Body but is not sloppy. It shouldn't be smaller than 25mm in diameter. The Salt mill Body should be able to rotate freely on the tenon. Remove the Salt mill Top from the lathe and remount so that you can finish the top of it. Finish turning and final sand. Remove the top from the lathe and apply your finish to the salt mill.

## Installing the mechanism

Slide the Grinder, Grinder Housing, Spring, and Shaft Spring Retainer over the Shaft. Slide this up through the bottom of the body of the salt mill so that the flanges of the Shaft Spring Retainer catch the lip of the 38mm hole. The Grinder should be fitting inside the Grinder Housing and the Grinder Housing should fit snugly in the 38mm hole.

Mark with an awl the location of the screw holes in the bottom of the Shaft Spring Retainer. Slide the retainer out of the way and drill the holes for the screws. Line up the holes of the Shaft Spring Retainer and the Grinder Shaft Retainer with the screw holes and use 2 screws to secure the grinder body.

Next, prepare the Salt mill Top by centering the Shaft Drive Plate over the tenon and the 6mm hole. Mark the screw holes, drill the holes, and screw the Shaft Drive Plate onto the bottom of the Salt mill Top.

Slide the Salt mill Top over the Shaft. The tenon should fit into the 38mm hole. It shouldn't fit so tightly that the Salt mill Top can't be turned, but it also should fit so loose that the Salt mill Top can wobble. Screw the Top Knob onto the shaft. You should be able to tighten and



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loosen the Top Knob to adjust the spring tension on the Grinder. That regulates the size of the salt grinds.